

American Museum Novitates

PUBLISHED BY THE AMERICAN MUSEUM OF NATURAL HISTORY
CENTRAL PARK WEST AT 79TH STREET, NEW YORK 24, N.Y.

NUMBER 2257

AUGUST 18, 1966

A Review of the Bug Genus *Pelidnocoris* Stål (Heteroptera, Pentatomidae, Discocephalinae)

BY HERBERT RUCKES¹

In 1867, Stål erected the genus *Pelidnocoris* but did not assign a species to it. The following year, Haglund, after examining the Stål material, described and established the type species as *Pelidnocoris stalii*. Until the present time, this species has been the only one in the genus. While sorting unidentified specimens in the Stockholm collections in 1960, I was able to segregate three examples of *Pelidnocoris*, which, while superficially like *stalii*, were sufficiently different to be considered a new form; the differences were particularly evident in the male genitalia. More recently (1962), I captured a single female specimen of another species while in residence on Barro Colorado Island in the Canal Zone, Panama. This is a much more robust example of the genus than either of the other two. Currently, therefore, three species should be assigned to *Pelidnocoris*.

GENUS *PELIDNOCORIS* STÅL

Pelidnocoris STÅL, 1867, p. 501.

TYPE SPECIES: *Pelidnocoris stalii* Haglund.

DIAGNOSIS: Head subequal to, or slightly shorter than, median length of pronotum, longer than wide between eyes; juga overlapping; antecular processes present; lateral margin of postfrenal lobe of scutellum not elevated; humeri not spinous.

¹ Research Associate, Department of Entomology, the American Museum of Natural History; and Professor Emeritus, the City University of New York.

GENERIC CHARACTERS: Broadly oval, depressed, quite flat beneath, upper surface somewhat uneven. Head porrect, elongate-oval, subequal to, or slightly shorter than, median length of pronotum, but longer than wide between eyes; antecular processes present, preceded by obtuse, deep, rounded sinus; lateral margins reflexed, feebly ampliate, apex moderately broad, with median notch; eyes large, protuberant; ocelli about two and one-half times as far apart as distant from eyes. Antennae five-segmented, filiform, quite long, reaching onto scutellum to level where frena end, or beyond; segment I stout, not attaining apex of head, segment II about two to three times as long as segment I.

Pronotum (figs. 1, 5, 9) somewhat transversely lenticular, at least three times as wide across greatest diameter as long medially; anterior margin quite shallowly excavated to receive head and at point of insertion feebly thickened, sigmoid behind eyes and terminating laterally in an acute, flat, subspinous denticle directed obliquely anteriorly; anterolateral margins foliaceous, bisinuate, producing two unequal lobes, larger, posterior one directed laterally, smaller, anterior one directed obliquely forward; humeri not produced; disc slightly uneven, with shallow transverse furrow behind cicatrices; posterior angles obsolescent. Scutellum linguiform, reaching apex of abdomen, strongly constricted at area where frena end; surface uneven, with pair (1 + 1) of low, obtuse humps on basal third of disc; postfrenal lobe longer than parafrenal portion and more or less flattened, becoming ampliate, its margins not reflexed, or elevated, apex truncately rounded, in some cases with vague, median emargination. Hemelytra reaching end of abdomen, membranes covered by scutellum, veins simple; costal margin hardly ampliate opposite base of abdomen, proximal portion shallowly sinuate, reflexed. Connexivum widely exposed, apical segmental angles rectilinear and produced, margin of abdomen coarsely serrate.

Bucculae low, more or less uniform in height, slightly divergent posteriorly, evanescent at base of head; buccular canal relatively wide, shallow. Rostrum reaching sixth abdominal sternite, or longer, basal segment attaining procoxae, segment II weakly arcuate, surpassing mesocoxae, shorter than segments III and IV taken together. Mesosternum mildly tumid with shallow, narrow, median sulcus; xyphus short, broad, its apical margin truncate. Metasternum broadly hexagonal, about twice as wide as long, its surface flat. Metacoxae farther apart from each other than each is distant from its respective mesocoxa. Metasternal orifice conspicuous, originating somewhat laterad of acetabula, peritreme ligulate, slightly elevated, slightly curved, ending abruptly at least three-fourths of distance across plate. Legs unevenly dotted and splotched

with castaneous spots; dorsal sulci of tibiae rather narrow, deep. Median abdominal furrow wide, shallow, extending to seventh sternite; anterior margin of seventh sternite in male produced forward into obtuse arc; median length of segment only about one and one-half times its marginal length.

Proctiger in male (figs. 2, 6) depressed, greatly dilated, somewhat triangular in outline, without central flexure, with conspicuous dorsal ostium through which anal tube extends; parameres small, obscured by proctiger.

Visible plates of female genital valves (figs. 4, 8, 10) two in number, these feebly inclined, their ventral surfaces facing partially posteriorly; apical plates obscured by basal plates.

KEY TO THE SPECIES OF *Pelidnocoris*

1. Anteocular processes ligular-spinate, longer than wide, their apices reaching lateral margin of eyes; pronotum without distinct antehumeral notch (figs. 1, 9) 2
- Anteocular processes triangular-denticulate, barely longer than wide, their apices not surpassing middle of eyes; pronotum with distinct antehumeral notch (fig. 5) *haglundi*, new species
- 2(1). Species 17.0 mm. in length; apical angle of posterior lobe of pronotal margin rectilinear to subobtuse (90° to 95°); anterior lobe of pronotal margin oval (fig. 9) *majusculus*, new species
- Species not more than 15.0 mm. in length; apical angle of posterior lobe of pronotal margin acute (55° to 60°); anterior lobe of pronotal margin acutely triangular (fig. 1) *stalii* Haglund

Pelidnocoris stalii Haglund

Figures 1-4

Pelidnocoris stalii HAGLUND, 1868, p. 150. STÅL, 1872, p. 10. DISTANT, 1880-1893, p. 48, pl. 7, fig. 2. LETHIERRY AND SEVERIN, 1893, p. 88. KIRKALDY, 1909, p. 220.

DIAGNOSIS: Anteocular processes elongate, reaching outer surface of eyes; apex of posterior lobe of pronotal margin acutely angled; pronotal margin without antehumeral notch (fig. 1).

The principal specific characters were given by Haglund. To these should be added the following:

Antennae filiform, finely setose, reaching at least area where frena end; fuscous to piceous, basal segment pale, with black stripe on inner and outer surface, joints, a small central annulus on segment IV, and basal third of segment V pale yellow; segmental ratios: 20/45/55/60/50, i.e., segment II slightly shorter than segment III.

Basal plates of female genital valves (fig. 4) elongate-trapezoidal,

feebly convex, apical margins slightly narrowed, converging medially, external apical angle of each plate subacute; basal and lateral margins not conspicuously bordered with black, disc with but few black punctures.

Pygofer (figs. 2, 3) stoutly oblong; genital cup widely open; dorsal border barely produced; lateral apical lobes broadly oblong, dorsal surfaces rather flattened, apical margins sinuate, lateral margins evenly arcuate; proctiger greatly dilated, somewhat rhomboidal in form, having central ostium exposing apical end of anal tube; from ventral aspect lateral apical lobes divergent, ventral apical margin (fig. 3) conspicuously V-shaped.

This species averages 13.5 mm. in length; 9.25 mm. in width across greatest pronotal diameter.

TYPE MATERIAL: Holotype, male; Mexico, no date; deposited in the Naturhistoriska Riksmuseum, Stockholm.

DISTRIBUTION: Mexico. Costa Rica. Panama: Chiriquí. Colombia.

Pelidnocoris haglundi, new species

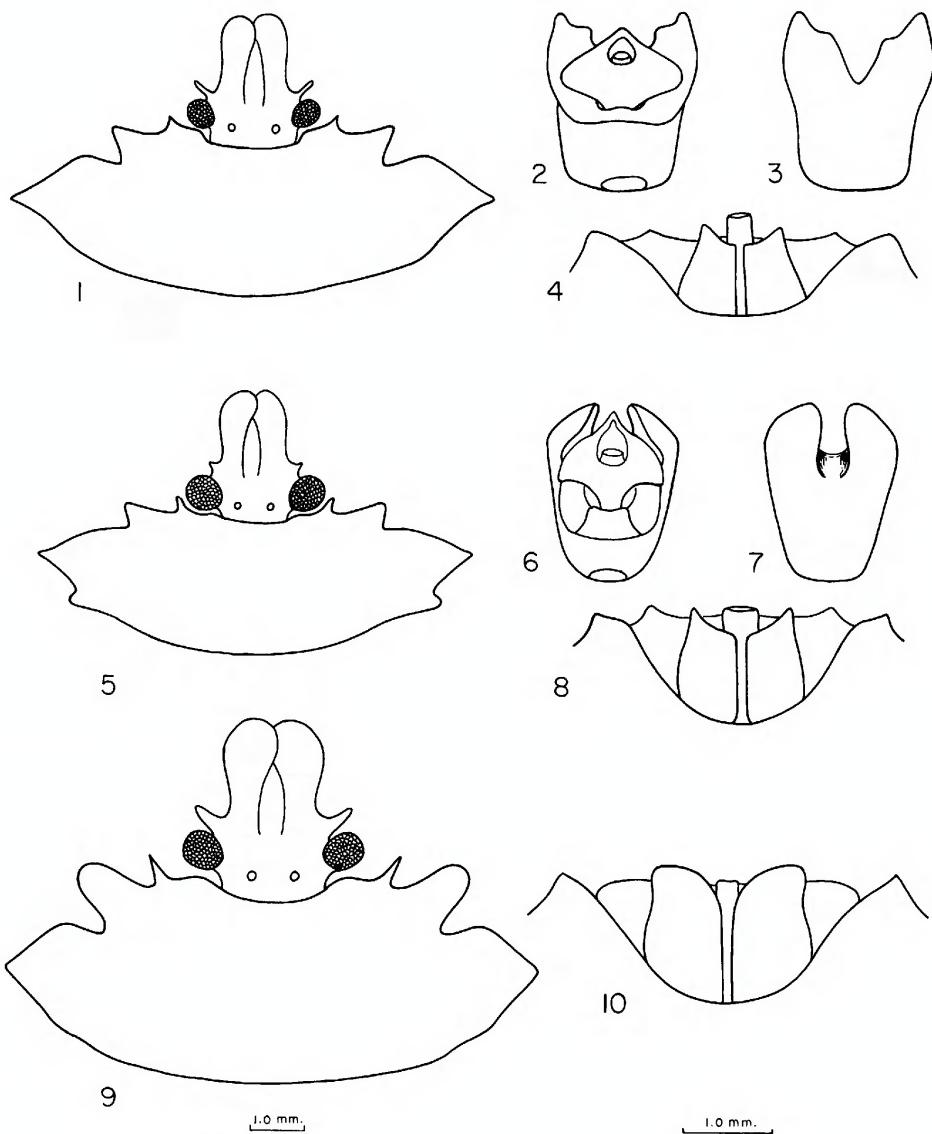
Figures 5-8

DIAGNOSIS: Anteocular processes short, acutely triangular, not surpassing middle of eyes; apex of posterior lobe of pronotal margin acutely angled; pronotal margin with distinct antehumeral notch (fig. 5).

SPECIFIC CHARACTERS: Form broadly oval; color above sordid yellow-cream, connexivum pale yellow to deep yellow; punctures castaneous to piceous, somewhat irregularly distributed except on scutellum, those on hemelytra tending to aggregate in loose clusters; beneath clear pale yellow, punctures restricted to propleura and mesopleura, metapleura and abdomen impunctate; mesosternum, metasternum, spiracles, pseudosutures, and narrow transverse margins of abdominal sutures castaneous to piceous, narrow bands of abdominal sutures ending abruptly before reaching lateral margins.

Head unevenly but somewhat densely punctured; anteocular margins weakly ampliate, juga narrowly overlapping, leaving small apical notch; anteocular processes stubby, acutely triangular, not surpassing middle of eyes; ocelli red, with narrow black ring. Antennae finely setose, reaching well beyond area where frena end; basal segment sordid cream-yellow, with narrow black stripe on inner and outer surfaces, segments II to V black, apex of segment III and central broad annulus of segment IV dull red, basal third of segment V pale yellow; segmental ratios: 20/55/50/70/60, i.e., segment II slightly longer than III (in *stalii*, ratios are 20/45/55/60/50, i.e., segment II slightly shorter than segment III).

Pronotum three times as wide across greatest diameter as long medially;



Figs. 1-4. *Pelidnocoris stalii* Haglund. 1. Head and pronotum. 2. Pygofer (dorsal aspect). 3. Pygofer (ventral aspect). 4. Genital valves of female.

Figs. 5-8. *Pelidnocoris haglundi*, new species. 5. Head and pronotum. 6. Pygofer (dorsal aspect). 7. Pygofer (ventral aspect). 8. Genital valves of female.

Figs. 9, 10. *Pelidnocoris majusculus*, new species. 9. Head and pronotum. 10. Genital valves of female.

transverse furrow behind cicatrices shallow; surface between humeri rather flat, distinctly transversely rugose; humeri feebly elevated, with

well-defined notch between them and base of posterior margins of antehumeral lobes. Postfrenal lobe of scutellum conspicuously ampliate, apical margin roundly subtruncate, feebly emarginate centrally; basal two elevations present but not prominent, saddle between them very shallow; remaining surface uneven; punctures more uniformly distributed than elsewhere. Surface of hemelytra slightly uneven, impunctate area feebly elevated; punctures piceous, tending to accumulate in loose clusters; external apical angle of corium infuscated; membranes very pale brown, paler basally and apically, veins concolorous, subparallel. Punctures of connexivum fuscous tending to be most dense on basal half of each segment.

Rostrum reaching through sixth abdominal sternite; median abdominal furrow infuscated, extending most of distance through disc.

Basal plates of female genital valves (figs. 8) lying more horizontally than in *stalii*, slightly convex, somewhat trapezoidal, with lateral margins feebly sinuate, external apical angle of each plate acute, weakly produced; basal and lateral margins broadly banded with black, disc of plates with few black punctures.

Pygofer (figs. 6, 7) somewhat elliptical-oval, apical halves of lateral apical lobes bent inward so that their apices approach each other, inner surfaces distinctly concave; dorsal border of capsule produced over base of proctiger, genital cup widely open, elongated; proctiger (dorsal aspect) almost sagittate, its apex acute and slightly produced posteriorly, dorsal orifice quite large, somewhat pyriform in outline, end of anal tube clearly evident; from ventral aspect, lateral apical lobes more or less parallel, hiatus between them elongate, ventral apical margin between lobes rather narrow, shallowly U-shaped.

This species averages 12.0 mm. in length; 9.0 mm. in width across greatest pronotal diameter.

TYPE MATERIAL: Holotype, male; Fonte-boa, Amazonas, Brazil; no date; *ex* collection Haglund; deposited in the Naturhistoriska Riksmuseum, Stockholm. Allotype, female; same data as for holotype. Paratype, female; same data as for holotype, except deposited in the American Museum of Natural History.

DISTRIBUTION: Brazil: Fonte-boa.

***Pelidnocoris majusculus*, new species**

Figures 9, 10

DIAGNOSIS: Base of postfrenal scutellar lobe with pair (1+1) of prominent umbonate elevations; angles of antehumeral pronotal lobes rectilinear; anterior marginal lobes rounded (fig. 9).

SPECIFIC CHARACTERS: Broadly ovate; above glossy, stramineous to pale ochraceous, with irregularly distributed, fine, ferruginous and fuscous punctures; beneath paler, with castaneous to fuscous punctures restricted to thoracic pleura; mesosternum, median abdominal furrow, margins of abdominal sutures, pseudosutures, and spiracles castaneous or darker, the extreme lateral ends of the transverse abdominal lines terminating in a sagittate mark; metasternum testaceous.

Anteocular processes of head stout, ligulate, their apices reaching outer surface of eyes; margins before processes feebly ampliate, strongly reflexed, disc of head concave; apex evenly rounded, with small apical notch; punctures on juga ferruginous, those on vertex piceous; ocelli red, less than twice as far apart as distant from eyes. Antennae filiform, strongly setose, reaching middle of scutellum, stramineous, basal three segments irregularly dotted and splotched with piceous, basal half of segment IV and small apical portion of segment V fuscous; segmental ratios: 37/90/90/90/80, i.e., segments II, III, and IV equal, each slightly longer than segment V.

Pronotum (fig. 9) three times as wide as long medially, surface somewhat undulant, transverse furrow behind cicatrices quite shallow; punctures irregularly distributed, those near foliaceous lateral borders ferruginous; anterior apical spinous denticles prominent, acute, about as large as anteocular processes; anterolateral foliaceous lobe somewhat oval, apical angle of posterior lobe rectilinear, humeri subprominent, without antehumeral notch. Scutellum reaching end of abdomen, surface quite irregular; basal elevations subconical; elevations on base of postfrenal lobe umbonate, remaining surface distinctly undulant; lateral margins of postfrenal lobe parallel, apex broadly, roundly truncate; punctures ferruginous and castaneous, somewhat irregularly distributed, densest near margins. Hemelytra unevenly punctured, some punctures aggregated in loose clusters; membranes reaching end of abdomen, colorless, veins also colorless. Connexivum widely exposed, stramineous with scattered red and ferruginous punctures; basal half of extreme lateral margin of each segment fuscous; apical angles of segments rectilinear, rather weakly produced.

Venter very glossy. Ostiolar peritreme ligulate, gently curved, quite long, its apex nearly reaching lateral margin of plate. Rostrum reaching onto seventh abdominal sternite. Legs pale yellow, irregularly spotted and blotched with castaneous spots, terminal tarsal segment tending to become rosy.

Basal plates of female genital valves (fig. 10) ovate-elliptical, distinctly longer than wide, convex, their apical halves gradually curved

dorsally, their surfaces facing posteriorly, their lateral margins feebly sinuate, their surfaces provided with fuscous punctures on inner and apical portions, margins not colored.

This species measures 17.0 mm. in length; 10.0 mm. in width across greatest pronotal diameter.

TYPE MATERIAL: Holotype, female; Barro Colorado Island, Canal Zone, Panama; June 22, 1962; H. Ruckes, collector; deposited in the American Museum of Natural History.

LITERATURE CITED

DISTANT, W. L.
1880-1893. Heteroptera. *In* Godman, F., and O. Salvin, *Biologia Centrali Americana*. London, Heteroptera, vol. 1, 462 pp., 39 pls.

HAGLUND, C. J. E.
1868. Hemiptera nova. *Ent. Zeitg.*, Stettin, vol. 29, p. 150.

KIRKALDY, G. W.
1909. Catalogue of Hemiptera (Heteroptera). Berlin, vol. 1 (Cimicidae), 392 pp.

LETHIERRY, L., AND G. SEVERIN
1893. Catalogue général des hémiptères. Brussels, vol. 1, 286 pp.

STÅL, C.
1867. Bidrag till Hemipterernas systematik. *Öfvers. K. Vetensk.-Akad. Förhandl.*, vol. 24, pp. 491-560.
1872. *Enumeratio cimicinorum Americae*. *K. Svenska Vetensk.-Acad. Handl.*, vol. 10, no. 4, 159 pp.